Patent claims

1. A compound of the formula 2

in which

R1 and R2 together are O (oxygen) or an ethylenedioxy radical (-O-CH₂-CH₂-O-), R3 is hydrogen or cyano (CN), R4 is hydrogen, methyl or trifluoromethyl or their salts and their N-oxides.

- 2. A compound of the formula 2 as claimed in claim 1, in which R1 and R2 together are an ethylenedioxy radical (-O-CH₂-CH₂-O-), R3 is hydrogen and R4 is hydrogen, methyl or trifluoromethyl, or its N-oxides.
- 3. A compound of the formula 2 as claimed in claim 1, in which R1 and R2 together are O (oxygen), R3 is cyano (CN) and R4 is hydrogen, methyl or trifluoromethyl, or its salts.
- 4. A process for the preparation of the compounds of the formula 2 as claimed in claim 1, in which R1 and R2 together are O (oxygen), R3 is cyano (CN) and R4 is hydrogen, methyl or trifluoromethyl, or its salts, which comprises alkylating the N-oxide of the compound of the formula 2 as claimed in claim 1, in which R1 and R2 together are an ethylenedioxy radical (-O-CH₂-CH₂-O-), R3 is hydrogen and R4 is hydrogen, methyl or trifluoromethyl, then reacting it with a cyanide and then working up.
- 5. The reaction of the compounds of the formula 2 as claimed in claim 1, in which R1 and R2 together are O (oxygen), R3 is cyano (CN) and R4 is hydrogen, methyl or trifluoromethyl, or its salts, to give compounds of the formula 1

$$O \xrightarrow{A_1} O \xrightarrow{A_2} O \xrightarrow{R4} CH_3 1$$

in which A_1 and A_2 are each hydrogen or together form a bond and R4 is hydrogen, methyl or trifluoromethyl, which comprises cyclizing the compounds of the formula 2 with deprotonation and, if desired, then oxidizing the compounds of the formula 1 obtained, in which A_1 and A_2 are each hydrogen, to give compounds of the formula 1 in which A_1 and A_2 together are a bonding dash.

6. A compound of the formula 1

in which A_1 and A_2 are each hydrogen or together form a bond and R4 is hydrogen, methyl or trifluoromethyl, or its salts.